Changing images

```
WARNING!!!!
  This is a sandbox environment. Using personal credentials
 is HIGHLY! discouraged. Any consequences of doing so are
 completely the user's responsibilites.
.................
       (local) root@192.168.0.7
 docker pull ubuntu:16.04
16.04: Pulling from library/ubuntu
61e03ba1d414: Pull complete
4afb39f216bd: Pull complete
e489abdc9f90: Pull complete
999fff7bcc24: Pull complete
Digest: sha256:6aab78d1825b4c15c159fecc62b8eef4fdf0c693a15aace3a605ad44e5e2df0c
Status: Downloaded newer image for ubuntu:16.04
docker.io/library/ubuntu:16.04
      (local) root@192.168.0.7
$ docker run -it ubuntu:16.04 /bin/bash
root@7456b0af1905:/# ping google.com
bash: ping: command not found
root@7456b0af1905:/# apt-get update
Get:1 http://security.ubuntu.com/ubuntu xenial-security InRelease [109 kB]
Get:2 http://archive.ubuntu.com/ubuntu xenial InRelease [247 kB]
Get:3 http://security.ubuntu.com/ubuntu xenial-security/main amd64 Packages [2051 kB]
Get:4 http://security.ubuntu.com/ubuntu xenial-security/restricted amd64 Packages [15.9 kB]
Get:5 http://security.ubuntu.com/ubuntu xenial-security/universe amd64 Packages [984 kB]
Get:6 http://security.ubuntu.com/ubuntu xenial-security/multiverse amd64 Packages [8820 B]
Get:7 http://archive.ubuntu.com/ubuntu xenial-updates InRelease [109 kB]
Get:8 http://archive.ubuntu.com/ubuntu xenial-backports InRelease [107 kB]
Get:9 http://archive.ubuntu.com/ubuntu xenial/main amd64 Packages [1558 kB]
Get:10 http://archive.ubuntu.com/ubuntu xenial/restricted amd64 Packages [14.1 kB]
Get:11 http://archive.ubuntu.com/ubuntu xenial/universe amd64 Packages [9827 kB]
Get:12 http://archive.ubuntu.com/ubuntu xenial/multiverse amd64 Packages [176 kB]
Get:13 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [2559 kB]
Get:14 http://archive.ubuntu.com/ubuntu xenial-updates/restricted amd64 Packages [16.4 kB]
Get:15 http://archive.ubuntu.com/ubuntu xenial-updates/universe amd64 Packages [1544 kB]
Get:16 http://archive.ubuntu.com/ubuntu xenial-updates/multiverse amd64 Packages [26.2 kB]
Get:17 http://archive.ubuntu.com/ubuntu xenial-backports/main amd64 Packages [10.9 kB]
Get:18 http://archive.ubuntu.com/ubuntu xenial-backports/universe amd64 Packages [12.7 kB]
Fetched 19.4 MB in 3s (5548 kB/s)
Reading package lists... Done
root@7456b0af1905:/# apt-get install iputils-ping
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
 libffi6 libgmp10 libgnutls-openss127 libgnutls30 libhogweed4 libidn11 libnettle6 libp11-kit0
 libtasn1-6
Suggested packages:
 gnutls-bin
The following NEW packages will be installed:
 iputils-ping libffi6 libgmp10 libgnutls-openss127 libgnutls30 libhogweed4 libidn11 libnettle6
  libp11-kit0 libtasn1-6
0 upgraded, 10 newly installed, 0 to remove and 0 not upgraded.
Need to get 1307 kB of archives.
After this operation, 3781 kB of additional disk space will be used.
```

```
Do you want to continue? [Y/n] Y
Get:1 http://archive.ubuntu.com/ubuntu xenial/main amd64 libgmp10 amd64 2:6.1.0+dfsg-2 [240 kB]
Get:2 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libnettle6 amd64 3.2-1ubuntu0.16.04.2
[93.7 kB]
 Get:3 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libhogweed4 amd64 3.2-1ubuntu0.16.04.2
 [136 kB]
 Get:4 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libidn11 amd64 1.32-3ubuntu1.2 [46.5 k
В]
Get:5 http://archive.ubuntu.com/ubuntu xenial/main amd64 libffi6 amd64 3.2.1-4 [17.8 kB]
 Get:6 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libp11-kit0 amd64 0.23.2-5~ubuntu16.04
.2 [107 kB]
Get:7 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libtasn1-6 amd64 4.7-3ubuntu0.16.04.3
[43.5 kB]
Get:8 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libgnutls30 amd64 3.4.10-4ubuntu1.8 [5
Get:9 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libgnutls-openss127 amd64 3.4.10-4ubun
tu1.8 [21.9 kB]
 Get:10 http://archive.ubuntu.com/ubuntu xenial/main amd64 iputils-ping amd64 3:20121221-5ubuntu2 [52.7
kB1
Fetched 1307 kB in 0s (1780 kB/s)
debconf: delaying package configuration, since apt-utils is not installed Selecting previously unselected package libgmp10:amd64.
(Reading database ... 4785 files and directories currently installed.)
Preparing to unpack .../libgmp10_2%3a6.1.0+dfsg-2_amd64.deb ...
Unpacking libgmp10:amd64 (2:6.1.0+dfsg-2) ...
Selecting previously unselected package libnettle6:amd64.
Preparing to unpack .../libnettle6_3.2-1ubuntu0.16.04.2_amd64.deb ...
Unpacking libnettle6:amd64 (3.2-1ubuntu0.16.04.2) ...
Selecting previously unselected package libhogweed4:amd64.
Preparing to unpack .../libhogweed4_3.2-1ubuntu0.16.04.2_amd64.deb ...
Unpacking libhogweed4:amd64 (3.2-1ubuntu0.16.04.2) ...
Selecting previously unselected package libidn11:amd64.
Preparing to unpack .../libidn11_1.32-3ubuntu1.2_amd64.deb ...
Unpacking libidn11:amd64 (1.32-3ubuntu1.2) ...
Selecting previously unselected package libffi6:amd64.
Preparing to unpack .../libffi6 3.2.1-4 amd64.deb ...
Unpacking libffi6:amd64 (3.2.1-4) ...
Selecting previously unselected package libp11-kit0:amd64.
Preparing to unpack .../libp11-kit0_0.23.2-5~ubuntu16.04.2_amd64.deb ...
Unpacking libp11-kit0:amd64 (0.23.2-5~ubuntu16.04.2) ...
Selecting previously unselected package libtasn1-6:amd64.
Preparing to unpack .../libtasn1-6_4.7-3ubuntu0.16.04.3_amd64.deb ...
Unpacking libtasn1-6:amd64 (4.7-3ubuntu0.16.04.3) ...
Selecting previously unselected package libgnutls30:amd64.
Preparing to unpack .../libgnutls30_3.4.10-4ubuntu1.8_amd64.deb ...
Unpacking libgnutls30:amd64 (3.4.10-4ubuntu1.8) ...
Selecting previously unselected package libgnutls-openss127:amd64.
Preparing to unpack .../libgnutls-openss127_3.4.10-4ubuntu1.8_amd64.deb ...
Unpacking libgnutls-openss127:amd64 (3.4.10-4ubuntu1.8) ...
Selecting previously unselected package iputils-ping.
Preparing to unpack .../iputils-ping_3%3a20121221-5ubuntu2_amd64.deb ...
Unpacking iputils-ping (3:20121221-5ubuntu2) ...
Processing triggers for libc-bin (2.23-0ubuntu11.3) ...
```

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Setting up libgmp10:amd64 (2:6.1.0+dfsg-2)
Setting up libnettle6:amd64 (3.2-1ubuntu0.16.04.2) ...
Setting up libhogweed4:amd64 (3.2-1ubuntu0.16.04.2) ...
Setting up libidn11:amd64 (1.32-3ubuntu1.2) ...
Setting up libffi6:amd64 (3.2.1-4) ...
Setting up libp11-kit0:amd64 (0.23.2-5~ubuntu16.04.2) ...
Setting up libtasn1-6:amd64 (4.7-3ubuntu0.16.04.3) ...
Setting up libgnutls30:amd64 (3.4.10-4ubuntu1.8) ...
Setting up libgnutls-openss127:amd64 (3.4.10-4ubuntu1.8) ...
Setting up iputils-ping (3:20121221-5ubuntu2) ...
Setcap is not installed, falling back to setuid
Processing triggers for libc-bin (2.23-0ubuntu11.3) ...
root@7456b0af1905:/# ping google.com
PING google.com (172.217.15.78) 56(84) bytes of data.
64 bytes from iad23s63-in-f14.1e100.net (172.217.15.78): icmp_seq=1 ttl=113 time=1.45 ms
64 bytes from iad23s63-in-f14.1e100.net (172.217.15.78): icmp_seq=2 ttl=113 time=1.45 ms
64 bytes from iad23s63-in-f14.1e100.net (172.217.15.78): icmp_seq=3 ttl=113 time=1.27 ms
64 bytes from iad23s63-in-f14.1e100.net (172.217.15.78): icmp_seq=4 ttl=113 time=1.26 ms
64 bytes from iad23s63-in-f14.1e100.net (172.217.15.78): icmp_seq=5 ttl=113 time=1.13 ms
 ,c
 -- google.com ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4004ms
rtt min/avg/max/mdev = 1.132/1.314/1.451/0.124 ms
root@7456b0af1905:/# docker ps -a
bash: docker: command not found
 root@7456b0af1905:/# exit
 exit
       [] (local) root@192.168.0.7 ~
  docker ps -a
 ONTAINER ID IMAGE
                                    COMMAND
                                                     CREATED
                                                                                STATUS
                                                                                                                   PORTS
 NAMES
 456b0af1905 ubuntu:16.04 "/bin/bash" About a minute ago Exited (127) 5 seconds ago
 keen_ptolemy
        (local) root@192.168.0.7 ~
  docker commit --help
Usage: docker commit [OPTIONS] CONTAINER [REPOSITORY[:TAG]]
Create a new image from a container's changes
Options:
                              Author (e.g., "John Hannibal Smith <hannibal@a-team.com>")
Apply Dockerfile instruction to the created image
  -a, --author string
  -c, --change list
   -m, --message string Commit message
  -p, --pause
                              Pause container during commit (default true)
  docker commit -a 'MJ Santos' -m 'Added ping utility.' 745 itachity/ping
sha256:ce8a6c7f1f121265795805390debad51c6a6d1c8616e9795d1af892ad3698419
        ] (local) root@192.168.0.7
$ docker images
REPOSITORY
                   TAG
                                IMAGE ID
                                                  CREATED
                                                                      SIZE
itachity/ping
                                ce8a6c7f1f12
                                                  4 seconds ago
                 latest
                                                                      170MB
                   16.04
                               065cf14a189c
                                                  4 days ago
                                                                      135MB
ubuntu
         (local) root@192.168.0.7
$ docker run -it --rm itachity/ping /bin/bash
root@3dab50582cb2:/# ping google.com
PING google.com (142.251.33.206) 56(84) bytes of data.
64 bytes from iad23s96-in-f14.1e100.net (142.251.33.206): icmp_seq=1 ttl=111 time=1.19 ms
64 bytes from iad23s96-in-f14.1e100.net (142.251.33.206): icmp_seq=2 ttl=111 time=1.14 ms
64 bytes from iad23s96-in-f14.1e100.net (142.251.33.206): icmp_seq=3 ttl=111 time=1.15 ms
 ^C
 -- google.com ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2002ms rtt min/avg/max/mdev = 1.144/1.164/1.195/0.022 ms
root@3dab50582cb2:/# exit
```